

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

National Status and Trends: Bioeffects Program - Sabine Lake, Texas Database

**1.2. Summary description of the data:**

The toxicity of sediments in Sabine Lake, Texas, and adjoining Intracoastal Waterway canals was determined as part of bioeffects assessment studies managed by NOAA's National Status and Trends Program. The study area encompassed all of Sabine Lake, portions of the Sabine River, portions of the Neches River, portions of the Neches-Sabine Canal at the confluence of the two rivers, portions of Sabine Pass channel entrance, and an area in the Gulf of Mexico near the entrance channel. A stratified-random sampling design similar to those used in previous surveys conducted nationwide by NOAA was applied in Sabine Lake. The study area was subdivided into 22 irregular-shaped strata. Strata established within channels were further subdivided into three substrata to improve spatial coverage. Only one location each was sampled within each substratum, whereas three locations were sampled in each of the larger undivided strata. Surficial sediment samples were collected during August, 1995 from 66 randomly-chosen locations. Laboratory toxicity tests were performed as indicators of potential ecotoxicological effects in sediments. A battery of tests was performed to generate information from different phases (components) of the sediments. Tests were selected to represent a range in toxicological endpoints from acute to chronic sublethal responses. Toxicological tests were conducted to measure: reduced survival of adult amphipods exposed to solid-phase sediments; impaired fertilization success and abnormal morphological development in gametes and embryos, respectively, of sea urchins exposed to pore waters; reduced metabolic activity of a marine bioluminescent bacteria exposed to organic solvent extracts; and induction of a cytochrome P-450 reporter gene system in exposures to solvent extracts of the sediments. Chemical analyses were performed on portions of each sample to quantify the concentrations of trace metals, polynuclear aromatic hydrocarbons, and chlorinated organic compounds. Correlation analyses were conducted to determine the relationships between measures of toxicity and concentrations of potentially toxic substances in the samples. The full report is available online at <http://www.ccma.nos.noaa.gov/about/coast/nsandt/musselmethods.aspx>

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

1995

**1.5. Actual or planned geographic coverage of the data:**

W: -94.08783, E: -93.72916, N: 30.0917, S: 29.6167

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:****1.8.1. If data are from another observing system, please specify:****2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

NCCOS Scientific Data Coordinator

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

National Centers for Coastal Ocean Science

**2.4. E-mail address:**

NCCOS.data@noaa.gov

**2.5. Phone number:****3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

NCCOS Scientific Data Coordinator

**3.2. Title:**

Data Steward

#### 4. Resources

*Programs must identify resources within their own budget for managing the data they produce.*

##### 4.1. Have resources for management of these data been identified?

##### 4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

#### 5. Data Lineage and Quality

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

##### 5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

*(describe or provide URL of description):*

Process Steps:

- 1995-01-01 00:00:00 - DATA ACQUISITION/FIELD SAMPLING Sediment sampling procedures are described in the report available for download at <http://ccma.nos.noaa.gov/about/coast/nsandt/download.aspx> DATA PREPARATION AND SAMPLE PROCESSING Fields are arranged as follows: Sample Type; Field Holding; Lab Storage; Max Holding SEDIMENT Organic contaminants; Wet ice (4C); Freezer (-20C); 1 year Inorganic contaminants; Wet ice (4C); Freezer (-20C); 1 year Total organic Carbon; Wet ice (4C); Freezer (-20C); 1 year Grain size; Wet ice; (4C); Refrigerated (4C); 1 year TOXICITY BIOASSAY Whole sediment and porewater bioassays; Wet ice (4C); Refrigerated (4C); 2 weeks Organic extract (P450 and Microtox); Wet ice (4C); Freezer (-20C); 1 year BENTHOS Taxonomy; 10% buffered formalin; Transfer to 70% ethanol; Indefinitely
- Chemicals with similar structural properties were summed and reported as "Totals" in addition to their individual measured concentrations. The components of these totals are as follows: Total DDT = sum of concentrations of ortho and para forms of parent and metabolites 2,4'DDE; 4,4'DDE; 2,4'DDD; 4,4'DDD; 2,4'DDT and 4,4'DDT. Total Chlordane = sum of concentrations of four compounds alpha-chlordane, trans-nonachlor, heptachlor, heptachlorepoxyde. Total Dieldrin = sum of concentrations of two compounds aldrin and dieldrin. Total Butyl tin = sum of concentrations of parent compound and metabolites monobutyltin, dibutyltin, tributyltin, tetrabutyltin [concentrations are in terms of tin]. Total PCB = the sum of the concentrations of eighteen congeners: PCB8, PCB18, PCB28, PCB44, PCB52, PCB66, PCB101, PCB105, PCB118, PCB128, PCB138, PCB153, PCB170, PCB180, PCB187, PCB195, PCB206, and PCB209. Total low molecular weight (lmw) PAHs = sum of concentrations of twelve 2- and 3-ring PAH compounds: naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, biphenyl, 2,6-dimethylnaphthalene, acenaphthene, acenaphthylene, 1,6,7-trimehtylnaphthalene, fluorine,

phenanthrene, 1-methylphenanthrene, and anthracene. Total high molecular weight (hmw) PAHs = sum of concentrations of twelve 4-and more-ring PAH compounds: fluoranthene, pyrene, benz[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[e]pyrene, benzo[a]pyrene, perylene, dibenzathracene, indeno[1,2,3-cd]pyrene, and benzo[ah]perylene. Total PAH = low molecular weight PAHs plus high molecular weight PAHs (sum of 24 PAH compound concentrations). Several numerical indices were chosen for analysis and interpretation of the macroinfaunal data. Infaunal abundance is reported as the total number of individuals per station and the total number of individuals per square meter (= density). Taxa richness is reported as the number of taxa represented in a given site location. Taxa diversity, which is often related to the ecological stability and environmental "quality" of the benthos, was estimated by the Shannon-Weiner Index (Shannon and Weaver, 1949). In order to quantify and compare the equitability in the fauna to the taxa diversity for a given area, Pielou's Evenness Index  $J'$  (Pielou, 1966) was calculated as  $J' = H'/\ln S$ , where  $\ln S = H'_{\max}$ , or the maximum possible diversity, when all taxa are represented by the same number of individuals; thus,  $J' = H' / H'_{\max}$ .

- Project Related References: Pielou, E.C. 1966. The Measurement of Diversity in Different Types of Biological Collections. *J. Theoretical Biology* 13:131-144. Shannon, L.C. and W. Weaver. 1949. *The Mathematical Theory of Communication*. Univ. of Illinois Press, Urbana, Ill. 117 p.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed

- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:****6.3. URL of metadata folder or data catalog, if known:**

<https://inport.nmfs.noaa.gov/inport/item/39077>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: <http://www.nmfs.noaa.gov/op/pds/documents/04/111/04-111-01.pdf>

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

National Centers for Coastal Ocean Science

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

<https://products.coastalscience.noaa.gov/collections/ltmonitoring/nsandt/default.aspx>

<https://products.coastalscience.noaa.gov/collections/ltmonitoring/nsandt/default.aspx>

**7.3. Data access methods or services offered:****7.4. Approximate delay between data collection and dissemination:****7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:****8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:****8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:****8.2. Data storage facility prior to being sent to an archive facility (if any):**

National Centers for Coastal Ocean Science - Silver Spring, MD

**8.3. Approximate delay between data collection and submission to an archive facility:****8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*